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A STATISTICAL SURVEY OF DIOXIN-LIKE COMPOUNDS IN UNITED STATES BEEF: A PROGRESS REPORT

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Abstract

The USEPA and the USDA have completed the first statistically designed survey of the occurrence and concentration of CDDs and CDFs in the fat of beef animals raised for human consumption in the United States. Back fat was sampled from 63 carcasses at federally inspected slaughter establishments nationwide. The sample design called for sampling beef animal classes in proportion to national annual slaughter statistics. All samples were analyzed using a modification of EPA method 1613, using isotope dilution, High Resolution GC/MS to determine the rate of occurrence of 2,3,7,8-substituted CDDs/CDFS. The method detection limits ranged from 0.05 ng kg^{-1} for TCDD to 3 ng kg^{-1} for OCDD. The results of this survey showed a mean concentration (reported as I-TEQ, lipid adjusted) in U.S. beef animals of 0.35 ng kg^{-1} and 0.89 ng kg^{-1} when either non-detects are treated as 0 value or assigned a value of 1/2 the detection limit, respectively.